Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application:

1. (currently amended) Switched-mode power supply having a transformer ~~(T1)~~, which has a primary winding ~~(W1)~~ and at least one secondary winding ~~(W2—W6)~~, having a switching transistor ~~(Q1)~~ in series with the primary winding, having a driver stage ~~(DR)~~ for controlling the switching transistor ~~(Q1)~~, and having a control circuit for controlling an output voltage ~~(U3—U5)~~, with the control circuit containing an oscillator ~~(O)~~ which can be adjusted via a connection ~~(4), characterized in that~~ , wherein the connection ~~(4)~~ is coupled to a secondary winding ~~(W6)~~ in order to determine the switch-on time of the switching transistor ~~(Q1)~~ by means of oscillation which occurs on the second winding ~~(W6)~~.

2. (currently amended) Switched-mode power supply according to Claim 1, ~~characterized in that~~ wherein a switching stage ~~(T1, T2)~~ is arranged between the connection ~~(4)~~ and the secondary winding ~~(W6)~~ and passes on a supply voltage ~~(V_{Ref})~~ to the connection ~~(4)~~ when a sudden voltage change occurs on the secondary winding ~~(W6)~~ at the time of an oscillation after a demagnetization phase of the transformer ~~(T1)~~.

3. (currently amended) Switched-mode power supply according to Claim 2, ~~characterized in that~~ wherein the secondary winding ~~(W6)~~ produces a positive voltage pulse, which switches on the switching stage ~~(T1, T2)~~, when an oscillation occurs.

4. (currently amended) Switched-mode power supply according to Claim 2 ~~or 3, characterized in that~~ , wherein a voltage divider ~~(R6, T7, R8)~~ is arranged between the switching stage ~~(T1, T2)~~ and the secondary winding ~~(W6)~~ in order to set a threshold value for the switching stage ~~(T1, T2)~~.

5. (currently amended) Switched-mode power supply according to Claim 2, ~~3 or 4, characterized in that~~ wherein a capacitor ~~(C4)~~ is arranged between the switching stage ~~(T1, T2)~~ and the secondary winding ~~(W6)~~ in order to limit a voltage pulse.

6. (currently amended) Switched-mode power supply according to ~~one of the preceding claims, characterized in that~~ Claim 1, wherein the switching stage ~~(T1, T2)~~ is coupled to an output ~~(6)~~ of the driver states ~~(DR)~~ in order to block the switching stage ~~(T1, T2)~~ when the switching transistor ~~(Q1)~~ is switched on.

7. (currently amended) Switched-mode power supply according to Claim 6, ~~characterized in that~~ wherein the switching stage ~~(T1, T2)~~ is coupled via a resistor ~~(R5)~~ and a diode ~~(D1)~~ to the output ~~(6)~~ of the driver states ~~(DR)~~.

8. (currently amended) Switched-mode power supply according to ~~one of the preceding Claims 4 to 7, characterized in that~~ Claim 4, wherein the switching stage ~~(T1, T2)~~ has a first switch ~~(T1)~~, which is connected between the supply voltage ~~(V_{Ref})~~ and the connection ~~(4)~~ and is switched on by a second switch ~~(T1)~~ when the voltage on the secondary winding ~~(W6)~~ exceeds the threshold value predetermined by the voltage divider ~~(T6 – R8)~~.

9. (currently amended) Switched-mode power supply according to ~~one of the preceding claims, characterized in that~~ Claim 1, wherein the secondary winding is an auxiliary winding ~~(W6)~~ on the primary side of the transformer ~~(TR)~~.

10. (currently amended) Switched-mode power supply according to ~~one of the preceding claims, characterized in that~~ Claim 1, wherein the control circuit and the oscillator ~~(O)~~ are arranged in an integrated circuit ~~(IC1)~~, in that the oscillator ~~(O)~~ is controlled by an external circuit ~~(R1, Ct)~~ with a sawtooth voltage via the connection ~~(4)~~, and in that a logic circuit ~~(LO)~~ in the integrated circuit ~~(IC1)~~ in each case alternately uses a sawtooth pulse ~~(SZ1)~~ from the sawtooth voltage to limit the time for which the switch transistor ~~(Q1)~~ is switched on and a sawtooth pulse ~~(SZ2, SZ2')~~ from the sawtooth voltage in order to determine the phase in which the switching transistor ~~(Q1)~~ is switched off.

11. (currently amended) Switched-mode power supply according to Claim 10, ~~characterized in that~~ wherein the supply voltage ~~(V_{Ref})~~ is a reference voltage ~~(V_{Ref})~~ which is produced via an output ~~(9)~~ of the integrated circuit.